- 3 -

1.   (Currently Amended) A method for authenticating a user over a network, comprising the steps of:

providing an identification box at the local site of the user, and providing a central server at a remote site, with the identification box including a biometric reader, and with the identification box and the central server being connected over the network;

confirming the identity of the user to the central server, using the identification box;

sending a unique math table from the central server to the identification box, with the unique math table being stored at both the central server and the identification box;

measuring a first biometric parameter from the user with the biometric reader, and storing the first biometric parameter in encrypted form at the identification box and at the central server;

sending a user request for authentication from the identification box to the central server;

a) sending a random number from ~~a remote site~~ the central server to ~~a local site~~ the identification box ~~of a user,~~;

b) measuring a ~~first~~ second biometric parameter from ~~said~~ the user with ~~a~~ the biometric reader~~,~~;

encrypting the second biometric parameter;

~~c)~~ comparing, at the identification box, ~~said first~~ the second encrypted biometric parameter with ~~a~~ the ~~previously~~ previously-stored ~~second~~ first encrypted biometric parameter~~,~~;

~~d)~~ operating on ~~said~~ the random number, 'at the identification box, with ~~a~~ the unique math table to create a first cryptogram when a positive match occurs between ~~said~~ the first and second encrypted biometric parameters;

operating on the random number, at the central server, with the unique math table to create a second cryptogram~~;~~

~~e)~~ sending ~~said~~ the first cryptogram from the identification box ~~said local site~~ to ~~said remote site~~ the central server;

~~for comparison~~ comparing, at the central server, the first cryptogram with ~~a~~ the second cryptogram ~~n internally generated cryptogram.~~; and

confirming the authenticity of the user when a positive match occurs between the first cryptogram and the second cryptogram.

2. (Cancelled) A method for authenticating a user over a network as in claim 1 further comprising the step of encrypting said first biometric parameter to form a first encrypted biometric parameter.

3. (Cancelled) A method for authenticating a user over a network as in claim 1 further comprising the step of generating a first cryptogram from said random number if said first encrypted biometric parameter positively matches said second encrypted biometric parameter.

4. (Cancelled) A method for authenticating a user over a network as in claim 1 further comprising the step of sending said first generated cryptogram to said remote site for comparison with a second cryptogram.

5. (Cancelled) A method for authenticating a user over a network as in claim 4 wherein said second cryptogram is generated from a site other that from said local site.

6. (Currently Amended) A method for authenticating a user over a network as in claim 1 further comprising the step of

allowing the user access to a second remote site if ~~said~~ the first cryptogram matches ~~said~~ the second cryptogram.

7.   (Currently Amended)   A method for authenticating a user over a network comprising the steps of:

providing an identification box at the local site of the user, and providing a central server at a remote site, with the identification box including a biometric reader, and with the identification box and the central server being connected over the network;

confirming the identity of the user to the central server, using the identification box;

sending a unique math table from the central server to the identification box, with the unique math table being stored at both the central server and the identification box;

measuring a first biometric parameter from the user with the biometric reader, and storing the first biometric parameter in encrypted form at the identification box and at the central server;

sending a user request for authentication from the identification box to the central server;

PATEL-2

a) sending a <u>first</u> random number from <u>the central server</u> a remote site to <u>the identification box</u> the site of the user;

b) measuring a <u>second</u> biometric parameter from said <u>the</u> user with a <u>the</u> biometric reader;

<u>encrypting the second biometric parameter;</u>

c) comparing<u>, at the identification box, the second encrypted</u> said first encrypted biometric parameter with a second encrypted biometric parameter <u>the</u> previously-stored <u>first</u> on said encrypted biometric reader <u>parameter</u>;

d) generating<u>, at the identification box,</u> a second random number when said <u>the</u> first encrypted biometric parameter does not positively match said <u>the</u> second encrypted biometric parameter;

e) operating on said <u>the</u> second random number<u>, at the identification box,</u> with a <u>the unique</u> math table to create a first cryptogram when a positive match fails to occur between said first and second <u>encrypted</u> biometric parameter<u>s</u>,

<u>operating on the first random number, at the central server, with the unique math table to create a second cryptogram;</u>

f) sending said <u>the</u> first cryptogram from said local site <u>the identification box</u> to said remote site for <u>the central server;</u>

PATEL-2

comparison comparing, at the central server, the first

cryptogram with an internally generated the second cryptogram;

and

denying the authenticity of the user when there is no match

occurs between the first cryptogram and the second cryptogram.-

8. (Currently Amended) A method for authenticating a user

over a network as in claim 7 furhter further comprising the step

of denying the user access to a second remote site if said the

first cryptogram does not match said the second cryptogram.

9. (Cancelled) A method for authenticating a user over

a network as in claim 7 further comprising the step of generating

a first cryptogram from said second random when said first

encrypted biometric parameter does not match said second

biometric parameter.

10. (New) A method according to claim 1 further

comprising:

providing a second identification box at a second remote

site, with the second identification box including a second

biometric reader, and with the second identification box and the central server being connected over the network;

sending a user request for authentication from the second identification box to the central server;

sending the unique math table and the first encrypted biometric parameter from the central server to the second identification box;

sending a second random number from the central server to the second identification box;

measuring a third biometric parameter from the user with the second biometric reader;

encrypting the third biometric parameter;

comparing, at the second identification box, the third encrypted biometric parameter with the first encrypted biometric parameter;

operating on the second random number, at the second identification box, with the unique math table to create a third cryptogram when a positive match occurs between the first and third encrypted biometric parameters;

operating on the second random number, at the central server, with the unique math table to create a fourth cryptogram;

sending the third cryptogram from the second identification box to the central server;

comparing, at the central server, the third cryptogram with the fourth cryptogram; and

confirming the authenticity of the user when a positive match occurs between the third cryptogram and the fourth cryptogram.

11.   (New) A system for authenticating a user over a network, comprising:

an identification box at the local site of the user, with the identification box including a biometric reader, and the identification box being connected to a central server over the network;

the identification box comprising apparatus adapted to:

(i) receive a unique math table from the central server and to store the same;

(ii) measure a first biometric parameter from the user and store the first biometric parameter in encrypted form;

(iii) send a user request for authentication to the central server;

(iv) receive a random number from the central server;

(v)   measure a second biometric parameter from the user;

(vi) encrypt the second biometric parameter;

(vii)   compare the second encrypted biometric parameter with the previously-stored first encrypted biometric parameter;

(viii)   operate on the random number with the unique math table to create a first cryptogram when a positive match occurs between the first and second encrypted biometric parameters; and

(ix) send the first cryptogram to the central server.

PATEL-2